

C¹ 42. (Amended) A method for treating asthma in a subject, comprising administering to an asthmatic subject an effective amount for treating asthma in [a] the subject of an immunostimulatory nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, wherein at least one internucleotide linkage has a phosphate backbone modification.

C² 44. (Amended) [The method of claim 42,] A method for treating asthma in a subject, comprising administering to an asthmatic subject an effective amount for treating asthma in the subject of an immunostimulatory nucleic acid, having a sequence including at least the following formula:

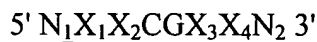


wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, wherein the nucleic acid has 8 to 100 nucleotides.

3 45. (Amended) The method of claim 42, wherein [the nucleic acid backbone includes] the phosphate backbone modification [on the 5' side of the nucleic acid] is a phosphorothioate modification.

C³ 47. (Amended) The method of claim 42, wherein the phosphate backbone modification [occurs at the 3' end of the nucleic acid] is a phosphorodithioate modification.

C⁴ 55. (Amended) The method of claim 42, wherein the immunostimulatory nucleic acid, has a sequence including at least the following formula:



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wherein X₁, X₂, X₃, and X₄ are nucleotides and N₁ and N₂ are [is a] nucleic acid sequences composed of from about 2-25 nucleotides.

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60. (Amended) A method for desensitizing a subject against the occurrence of an allergic reaction in response to contact with an allergen, comprising administering to a subject an effective amount for desensitizing the subject against the occurrence of an allergic reaction of an immunostimulatory nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein X₁X₂ and X₃X₄ are nucleotides, wherein at least one internucleotide linkage has a phosphate backbone modification.

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61. (Amended) The method of claim [25] 20, wherein the immunostimulatory nucleic acid is administered prior to exposure of the subject to an allergen.

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62. (Amended) The method of claim [25] 20, wherein the allergic reaction is due to an allergic condition selected from the group consisting of eczema, allergic rhinitis, allergic coryza, hay fever, bronchial asthma, urticaria, food allergy, and atopic conditions.

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63. (Amended) The method of claim 60, wherein the immunostimulatory nucleic acid, has a sequence including at least the following formula:



wherein X₁, X₂, X₃, and X₄ are nucleotides and N₁ and N₂ are [is a] nucleic acid sequences composed of from about 2-25 nucleotides.

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65. (Amended) [The method of claim 60,] A method for desensitizing a subject against the occurrence of an allergic reaction in response to contact with an allergen, comprising administering to a subject an effective amount for desensitizing the subject against the

occurrence of an allergic reaction of an immunostimulatory nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein $X_1 X_2$ and $X_3 X_4$ are nucleotides, wherein the nucleic acid has 8 to 100 nucleotides.

25. (Amended) The method of claim 20, wherein the nucleic acid backbone includes the internucleotide phosphate backbone modification on the 5' side of the nucleic acid.

26. (Amended) The method of claim 20, wherein the nucleic acid backbone includes the internucleotide phosphate backbone modification on the 3' side of the nucleic acid.

27. (Amended) The method of claim 20, wherein the phosphate backbone modification [occurs at the 3' end of the nucleic acid] is selected from the group consisting of a phosphorothioate modification and a phosphorodithioate modification.

Please add the following new claims:

52. (New) A method for treating asthma in a subject, comprising administering to an asthmatic subject an effective amount for treating asthma in the subject of a nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein $X_1 X_2$ and $X_3 X_4$ are nucleotides, and wherein the nucleic acid is isolated bacterial DNA.

53. (New) A method for treating or preventing allergy in a subject, comprising

administering to a subject an effective amount for desensitizing the subject against the occurrence of allergic reaction of a nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, and wherein the nucleic acid is isolated bacterial DNA.

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(New) A method for treating asthma in a subject, comprising orally administering to an asthmatic subject an effective amount for treating asthma in the subject of a nucleic acid having a sequence including at least the following formula:



wherein C is unmethylated, and wherein X_1X_2 and X_3X_4 are nucleotides.

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(New) A method for treating or preventing allergy in a subject, comprising orally administering to a subject an effective amount for desensitizing the subject against the occurrence of an allergic reaction of a immunostimulatory nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, and wherein X_1X_2 and X_3X_4 are nucleotides.

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(New) A method for treating asthma in a subject, comprising administering to an asthmatic subject an effective amount for treating asthma in the subject of a nucleic acid having a sequence including at least the following formula:



wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, and wherein the nucleic acid is administered by a route selected from the group consisting of transdermal and subcutaneous.

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(New) A method for treating or preventing allergy in a subject, comprising administering to a subject an effective amount for desensitizing the subject against the occurrence of an allergic reaction of a immunostimulatory nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, and wherein the nucleic acid is administered by a route selected from the group consisting of transdermal and subcutaneous.

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(New) A method for treating asthma in a subject, comprising administering to an asthmatic subject an effective amount for treating asthma in the subject of a nucleic acid having a sequence including at least the following formula:



wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, and wherein the nucleic acid is administered in a formulation selected from the group consisting of a nucleic acid delivery complex, a liposome, a virosome, and a nanoparticle.

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(New) A method for treating or preventing allergy in a subject, comprising administering to a subject an effective amount for desensitizing the subject against the occurrence of an allergic reaction of a immunostimulatory nucleic acid, having a sequence including at least the following formula:



wherein C is unmethylated, wherein X_1X_2 and X_3X_4 are nucleotides, and wherein the nucleic acid is administered in a formulation selected from the group consisting of a nucleic acid delivery complex, a liposome, a virosome, and a nanoparticle.